



Early Journal Content on JSTOR, Free to Anyone in the World

This article is one of nearly 500,000 scholarly works digitized and made freely available to everyone in the world by JSTOR.

Known as the Early Journal Content, this set of works include research articles, news, letters, and other writings published in more than 200 of the oldest leading academic journals. The works date from the mid-seventeenth to the early twentieth centuries.

We encourage people to read and share the Early Journal Content openly and to tell others that this resource exists. People may post this content online or redistribute in any way for non-commercial purposes.

Read more about Early Journal Content at <http://about.jstor.org/participate-jstor/individuals/early-journal-content>.

JSTOR is a digital library of academic journals, books, and primary source objects. JSTOR helps people discover, use, and build upon a wide range of content through a powerful research and teaching platform, and preserves this content for future generations. JSTOR is part of ITHAKA, a not-for-profit organization that also includes Ithaka S+R and Portico. For more information about JSTOR, please contact support@jstor.org.

POINTS OF DIFFERENCE BETWEEN NORSE REMAINS AND INDIAN WORKS MOST CLOSELY RESEMBLING THEM

By GERARD FOWKE

DISTINCTIVE WORKS OF EACH RACE

Few persons living among the evidences of Norse occupancy in the valley of Charles river, Massachusetts, have ever paid any particular attention to them, taking for granted that they are the work of the earlier generations of English inhabitants of the region. Those, however, who are sufficiently interested in a study of antiquity to give more than a passing thought to these objects of unknown origin, can see at once that many features connected with them not only would have been unsuitable for any of the necessities of the latter people, as they were then compelled to live, but could not have been turned to any practical use when completed. Such a conclusion is followed at once by the inference that they must pertain in some way to the social or political customs in vogue among the American Indians, it being quite natural thus to account for the existence within our territory of any form or result of human industry in which we, with our present methods and habits, can see neither utility nor purpose.

It does not require an extended acquaintance with aboriginal remains to convince an observer of the error of this inference; the two classes of works are so entirely different in many of their most distinctive characters that a person who has had an opportunity of becoming somewhat familiar with both will readily perceive that they must be due to people who could have had

but little in common in their habits of life—nothing more than would be expected of different races living under conditions somewhat the same.

Peculiar to the valley of the Charles are the hut-sites excavated in the hillsides, with their rows or piles of bowlders to afford a resting-place or foundation for the walls of the structures; the ditches that extend with practically a water-level along the slopes of the hills; the dams that obstruct the river and many of its tributaries on both sides; the artificial islands walled or protected with stones; the stone walls along the margin of the streams, between high and low tide,—none of these has a counterpart in any known works which can be attributed to Indian habits of life.

On the other hand, the extensive earthworks in the bottomlands; the hilltop fortifications of earth and stone; the immense tumuli of earth or stone, or both combined; and the huge flat-topped mounds of the Mississippi valley exclude from any participation in the construction of the works first mentioned the Indian tribes popularly known as “mound-builders.”

Prof. E. N. Horsford, who devoted his entire time for several years to a study of the Massachusetts remains, published a number of volumes and pamphlets containing very full descriptions, with numerous maps and many illustrations, of his discoveries. As these were printed only for private distribution, they are not readily accessible. A little volume by Elizabeth C. Shephard, bearing the title “A Guide-book to Norumbega and Vineland,” describes most of the Norse remains near Cambridge, and gives several maps and figures; while Miss Cornelia Horsford, who has carried on the work in recent years, has published two reports. One of the latter is in the *National Geographic Magazine* for March, 1898, under the caption “Dwellings of the Saga-time in Iceland, Greenland, and Vineland”; the other, “Vineland and its Ruins,” is to be found in the *Popular Science Monthly* for December, 1899. Both are well illustrated.

The reader who is interested in pursuing the subject further must refer to these publications, as it is not practicable herein to quote them at length.

HOUSES, HUTS, AND WIGWAMS

Of those apparent habitations of the Norse which bear some resemblance to what is of undoubted aboriginal construction, the dwellings of Leif and Thorfinn may first be considered. These are situated one on each side of a little stream which falls into the Charles at the Cambridge Hospital. They were rectangular in form and of a size sufficient to accommodate several families living in the old Scandinavian fashion. The walls were of stones and turf, principally the latter, and of a thickness altogether out of proportion to the size of the dwelling. Very little, if any, of that part which was above ground now remains, the earth being blown away and the stones scattered; but enough of the foundation may be seen to enable their outlines to be traced. It is probable that wood entered into their construction to some extent, but no trace of this would be left after so great a lapse of time.¹

The long-houses of the Iroquois and some of the larger houses built by the Chippewa had the same general form as these two dwellings; but with that the resemblance ceases. No foundation was necessary in the Indian house, and it was made principally or entirely of wood and bark; as a rule the framework was made of posts set upright in the ground to serve as supports on which were fastened the poles and twigs that formed the walls. Some of the earlier chronicles mention log-houses of the southern Indians, one of them, at least, containing five rooms; but the exact manner of construction of these is not known; at any rate, it is not probable that they had underground foundations, as no trace of such has been discovered during the numerous explorations of aboriginal village-sites in that region.

¹ See figures opposite pages 12 and 22 in the *Guide-book*, op. cit.

Another form of Norse house in the vicinity of Cambridge, of which a number have been examined, is the *cot* or hillside hut. These are made by digging back into a sloping surface until a level floor of the desired area is formed. There are indications that such places were covered with timber on which earth was piled, the structure thus resembling a modern root-cellar or milk-

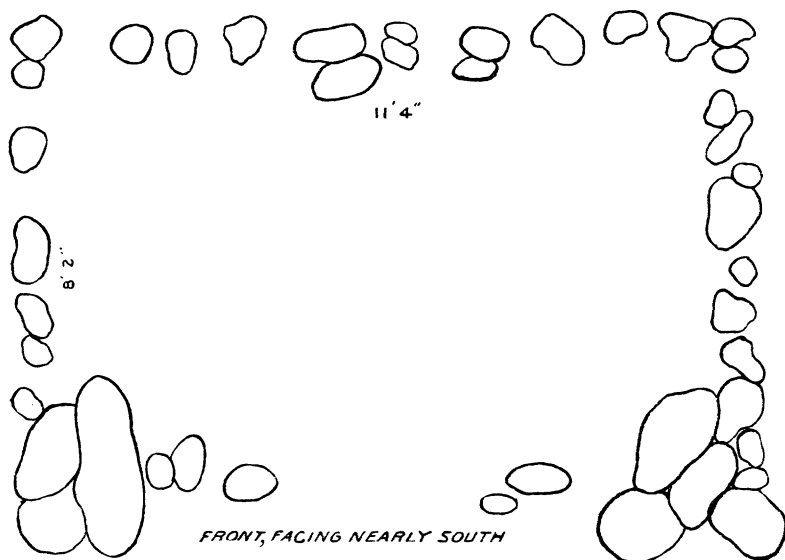


FIG. 62 — House-site above Sibley's, on opposite side of swamp, near Massachusetts Central Railway.

house so often seen in such situations. Sometimes, but not always, stones were placed around the sides; in one instance there was a double row of stones in front, apparently the foundation of a heavy wooden wall, and in another case walls of stone and turf were built along the sides (see figure 62, the illustration on page 82 of the *National Geographic Magazine*, and the figures in *Popular Science Monthly*, op. cit.).

Nothing at all of Indian origin is known to be like these. With the exceptions noted above, Indian houses are not square or rectangular, but round; this applies equally to the small tipi or wigwam made of skins, cloth, or bark, and to the council-house of

timbers, which has a seating capacity of several hundred. Circles of earth, analogous to circus-rings, except that they vary in diameter from 20 to 150 feet, are quite common throughout the Mississippi valley. These were piled up around the base of the building to prevent the ingress of cold air near the ground. The same custom prevails in cold regions, and for the same reason, among our modern farmers, who bank up the earth around the foundations of a house or barn. Many of the ancient embankments have been trenched across, but in none of them has there been found the slightest evidence of underground work, unless the small, round holes in which posts were set may be so termed; and these, of course, are not in any way to be compared with the stone-filled trenches marking the sites of the houses of Leif and Thorfinn, nor the hillside excavations for the smaller *cots*.

The fireplace in both classes of houses is at the center; but this is the most desirable, in fact about the only convenient, position for it in a house built without chimneys. With its location the resemblance ceases; for the Norse fireplace is formed of a stratum of small stones carefully laid within a space marked off by larger stones, whereas the Indian starts his fire in a shallow depression which he scoops out, the stones about being usually those used in cooking.

FUNNEL-SHAPE EXCAVATIONS

Near East Watertown there is a peculiar work locally known as the "Amphitheater."¹ The depression which determines its site is a natural formation, known to geologists, from its shape, as a "kettle-hole"; that is, a hollow formed by the melting of a mass which became detached from the main body of the glacier when it covered this spot, and was imbedded in the gravel deposited by the ice-sheet. Around two-thirds of the circumference of this, artificial terraces have been constructed, apparently to

¹ See figure opposite page 34 of the *Guide-book*, op. cit.

furnish seats from which spectators might view the exercises or ceremonies which presumably took place on the inclosed level area at the bottom.

A somewhat similar structure is reported to exist in England, and so this amphitheater may be more recent than the days of the Norse; but whatever its origin it cannot be attributed to the Indian. Artificial excavations of a few cubic yards' capacity, used as storehouses, caches, etc., are not uncommon about Indian settlements; but only five are known which, for magnitude, will compare favorably with the East Watertown pit. All are in Ohio, three of them in fertile, level bottom-lands, the other two on the tops of low knolls that slope in every direction from the summit. All are in the immediate neighborhood of some of the more important works of the mound-builders. As to their purpose no one has ever been able to make even a plausible suggestion, and they remain among the enigmas of our archeology. In their construction the excavated earth was thrown out equally, or nearly so, on every side, thus giving a circular embankment of practically uniform section area, with a continuous slope from its top to the bottom of the hole. In one, on a clay knoll, the water stands much of the time; in a wet season, throughout the year. The others, being in sandy ground, are usually dry at the bottom. None of them has ever been cleaned out; but from the curvature of their sides down to the accumulated muck and débris it would seem that they were originally rounded and not flat on the bottom. However, the changes brought about by rains and frost may have caused very considerable alteration in their form since they were abandoned; and it is possible that they mark the site of underground chambers.

TERRACES

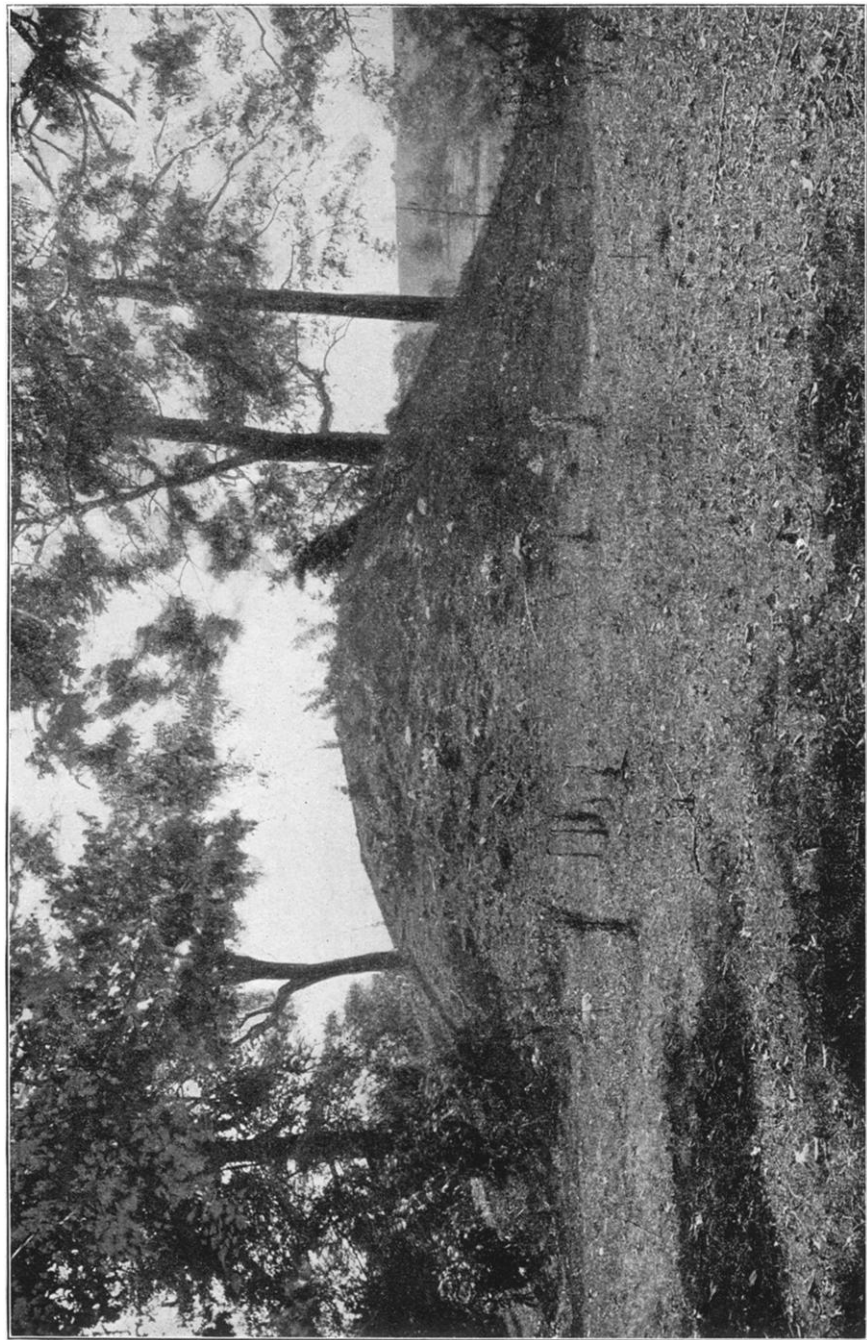
Somewhat more than a mile south of the amphitheater there occurs a work which seems to have been intended for the same purpose, and consequently must owe its construction to the same

people. At one side of a small area of smooth, level bottom-land, a sloping bank rises rather steeply to a height of perhaps 30 feet. Along this slope are three or four terraces, one above another, not large enough to be of any use for tillage. There is no knowledge or record concerning the time or the object of their construction.

There is nothing in the eastern part of the United States known to be of Indian origin with which these may properly be compared, although there are ancient terraces in the valley of the Little Miami, in Warren county, Ohio. Three of these form Fort Ancient. Unfortunately none of the maps of this interesting place show them at all correctly. One of the terraces is between the fort and the river; another is on the opposite side of the stream; while the third is beyond the ravine to the north. Each is about half-way between the base and the summit of the hill on which it is situated. They begin and terminate abruptly at a ravine or a sharp turn of the hill, holding as nearly the same level as it was possible to determine without instruments; each is several hundred yards in length and about twenty feet wide, their regularity being somewhat impaired by the erosion to which they have long been subjected. They were formed as terraces usually are — by cutting down the hillside above and piling the earth below until as much as was desired had been thus transferred. Their artificial character is shown by the charcoal, flint chips, and other products of human industry disclosed at various points by trenches cut through them; besides, no natural causes could have operated to produce them where they are situated.

Their purpose is unknown; they were not for farming, as there are wide, fertile bottoms close by; nor for defensive works, for there was nothing for two of them to protect, while the third is below one of the most inaccessible portions of the fort.

It is apparent there is no feature in common, beyond the fact of their having been made by men, between these and any of the terraces in the valley of Charles river.



A MOUND, SITUATED A MILE WEST OF CHILLICOTHE, OHIO, COMPOSED THROUGHOUT OF MINGLED STONE AND EARTH. HEIGHT, ELEVEN FEET.

BURIAL CUSTOMS

When people become subjected to the influence of an environment to which they have been unaccustomed, or when the conditions governing their life undergo a change, the immediate effect is an alteration of habits to conform to the new circumstances, and the divergence from earlier usages becomes more marked with the lapse of time. But the customs to which all peoples cling with the greatest tenacity are those pertaining to the final disposal of the dead. With long practice a sort of sanctity becomes attached to certain ceremonies and observances, and even among the most advanced nations may be witnessed rites which have now become absolutely meaningless, their origin being lost in the mists of antiquity. Reverence for the dead and care for the corpse or skeleton have been noted by all travelers among them as one of the most prominent of Indian characteristics, and persistence in certain methods of interment has been one of the chief aids to archeologists in determining areas of prehistoric tribal boundaries or migrations. This being true, more value attaches to a careful examination and comparison of burial works than to any other remains so far discovered.

MOUNDS

Although, as previously stated, the mound-builder is to be omitted from discussion, the reason for so doing will be more apparent if the character of his work be shown. In plate XXII is represented a mound, about 11 feet high, situated a mile west of Chillicothe, Ohio, on the highest plateau of the gravel, or glacial, deposits. The structure is composed partly of stones, some of which may be seen scattered on the surface. Mounds thus made are usually on hilltops, or at least on ground higher than the inclosures in the bottom-land, the mounds connected with the latter being composed entirely of earth. The evidence is plain that at least two tribes of mound-builders inhabited this

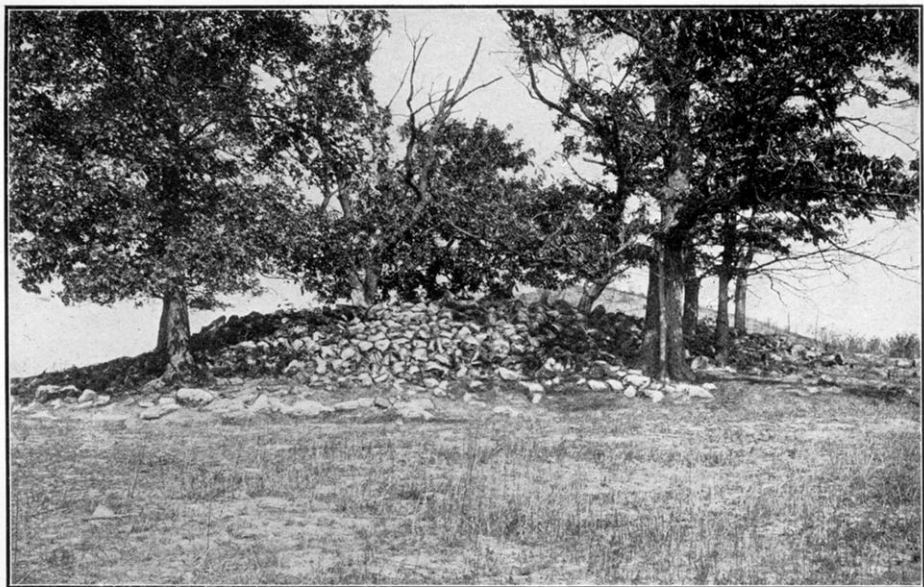
region, presumably at different times. The methods of burial and the unlikeness of the interior arrangement of the structures place this beyond question. So much space would be required for an explanation of the results of investigations in the tumuli, and they have been set forth in so many reports, that none will be attempted here.

The large mounds of Ohio, built entirely of stone, are confined to a limited area,—only three or four contiguous counties in the central part of the state,—and without exception are placed on hilltops overlooking the country for many miles in every direction. Though all of them have been more or less ransacked by relic-hunters, not one has ever been thoroughly explored, and beyond the fact that a few human bones, with associated artifacts, have been uncovered, nothing definite can be said about them. The mound shown in plate XXIII, *a*, situated near Linville, Licking county, has been thus somewhat reduced in height, the central portion down to the level of the ground having been thrown out. The rail leaning against the tree to the right is 8 feet long, showing the amount of stone to exceed greatly that in any of the Norse graves; and yet this mound is small as compared with some of the same class—notably the one near the Licking reservoir, which was more than 50 feet high and about 200 feet in diameter at the base.

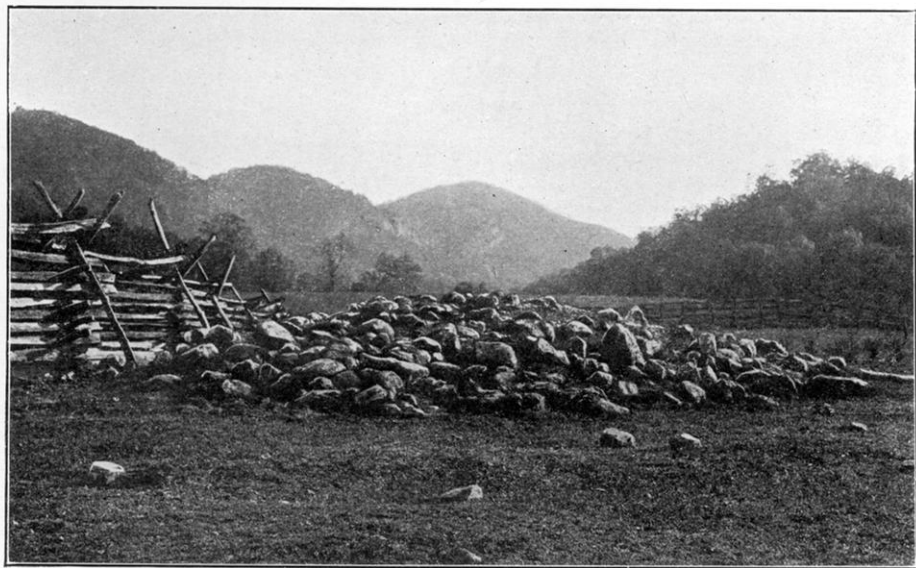
CAIRNS, BARROWS, SMALL TUMULI

SHENANDOAH, SOUTH BRANCH, AND UPPER POTOMAC VALLEYS

By far the greater number of American aborigines were interred in graves of which there is not now the slightest external indication. Relatively, very few of them were buried in mounds or cairns, yet it is only the latter that can here be used for comparison. In so simple a matter as piling up earth or stones merely for protective or monumental purposes, it is not to be expected that such well-marked plans are followed as will justify a



a — Stone mound near Linville, Licking county, Ohio. (Before being disturbed it was two to four feet higher. The rail against the tree to the right is eight feet long.)



b — The Baker mound, eight miles south of Moorefield, West Virginia.

TYPES OF STONE MOUNDS

classification into types; the main distinction is to be found in the methods of interment.

While a few earth-mounds exist, there are no stone graves east of the northern part of the Blue Ridge. This range seems to have formed a distinct boundary between the tribes to the east and those to the west; differences in burial customs on the opposite sides are as great as between sections a thousand miles apart. To the east of this chain, and westward from the Alleghanies, nothing that is of Indian origin bears the most remote likeness to the graves at Waverly and Clematis Brook; while among the mountains the latter are most closely approached in appearance by heaps, each containing about a cartload of small stones, found where trails crossed the highest points in gaps leading from one valley to another. These, however, are simply trail-markers, and have no relation whatever to funeral ceremonies. A careful examination of many of them shows that they were placed on the natural surface; the earth beneath had never been disturbed. Stone graves are found frequently in the country about them, but always in a different situation.

It is very seldom that a cairn is to be found intact; their small size tempts the relic-hunter, or one who seeks the gratification of an idle curiosity, to tear them to pieces.

Along the upper Potomac and some of its tributaries, there is a class of burials in which the body was laid on the ground with a log, apparently about the size of the body, on each side; traces of decayed wood, terminating at each end in charcoal, lie near and parallel to the skeleton, showing that the timber had been burnt off to the desired length. It is probable that other logs were laid across these for the protection of the body. Stones were then heaped over the vault thus made. Frequently several separated interments were covered by one mound. At the settlement of this region by the whites, some forty or fifty of these mounds were scattered along the base of a mountain near Hanging Rock, four miles below Romney, West Virginia, some on the

hillside, others on the river bottom-land ; but none was more than 50 feet from the bottom of the slope. In all except the smallest ones there was a depression in the top where the stones had fallen in from the decay of the wooden supports.

A different method was followed in the disposal of the corpse in cairns like that represented in plate XXIII, *b*. A shallow hole was dug, sometimes of a size to receive a single body extended at full length, sometimes round and of a diameter sufficient only to contain a corpse that had been folded or doubled into its smallest compass. More frequently the grave is large enough to hold several bodies that have been thus compressed.¹ Poles or small logs were laid across the hole to cover the body, and stones or earth, or sometimes both, heaped above. Mounds or cairns thus made seldom have any depression at the top, maintaining their flattened dome form. The one shown in plate XXIII, *b*, is located 8 miles south of Moorefield, West Virginia.

Throughout the valley of the Shenandoah and South branch, as well as on some of the smaller streams of this region, are cairns which were made of stone in the manner described and then covered with earth. They vary from 20 to 50 feet in diameter, and from two to five feet in height. Elliptical mounds and cairns also occur ; but thorough examination of a number bearing this shape has shown that their form is due not to original construction in that manner, but to the coalescence or overlapping of two or more smaller structures placed near together, the irregular spaces between being filled with earth and stones to give them a more symmetrical outline.

The Delawares and the Catawba used this region as a hunting ground ; the Six Nations claimed it as their exclusive property ; the Shawnee lived here. All these had villages at different points. Tradition points to other tribes, but they have long since been removed or exterminated. Village-sites are many ; but these

¹ From one, a little more than five feet across, portions of sixteen skeletons were obtained.

have communal earth-mounds and cemeteries. Most of the works here mentioned must be the remains of the tribes named above ; but as all of them roamed over the country at will, living where they wished as long as they chose or until driven away by stronger tribes, traces of their occupancy must be treated as a whole ; for our knowledge is and must remain too limited to permit discrimination.

MONONGAHELA AND UPPER OHIO VALLEYS

Watercourses being the earliest highways, it is natural to look for traces of prehistoric habitation along streams navigable for canoes almost every day in the year, flowing through fertile lands easily tilled, bordered by hills abounding in every sort of game. These conditions are met by the Monongahela and the upper Ohio ; and nowhere is there greater evidence that our predecessors appreciated such advantages. Mounds, cairns, village-sites occur everywhere ; the soil is strewn with implements necessary to primitive life. From the builder of the largest mound to the imbruted savage not much higher in the culture scale than the animals he hunted, all have left their mark in these beautiful valleys, on every acre of the soil. The burial places of the Mingo, the Delaware, and the Shawnee are plain, amid others whose authors will never be known.

These remains are found from the river shores to the tops of hills 600 feet high ; most of them are on the first terrace just beyond flood-tide, or on the next level nearly 200 feet above. The relic-hunter has been among them, stimulated by the exorbitant prices paid by wealthy collectors ; and for nearly a hundred miles only two cairns have escaped him. One of these, composed entirely of stone, which is on the bluff opposite Homestead, is shown in plate XXIV, *a*. It was formerly larger, but several wagon-loads of the stone have been taken for use in building. The method of burial varies in this region, owing to the different tribes that lived here. Investigation of these mounds might disclose bodies extended on the natural surface or placed in shallow

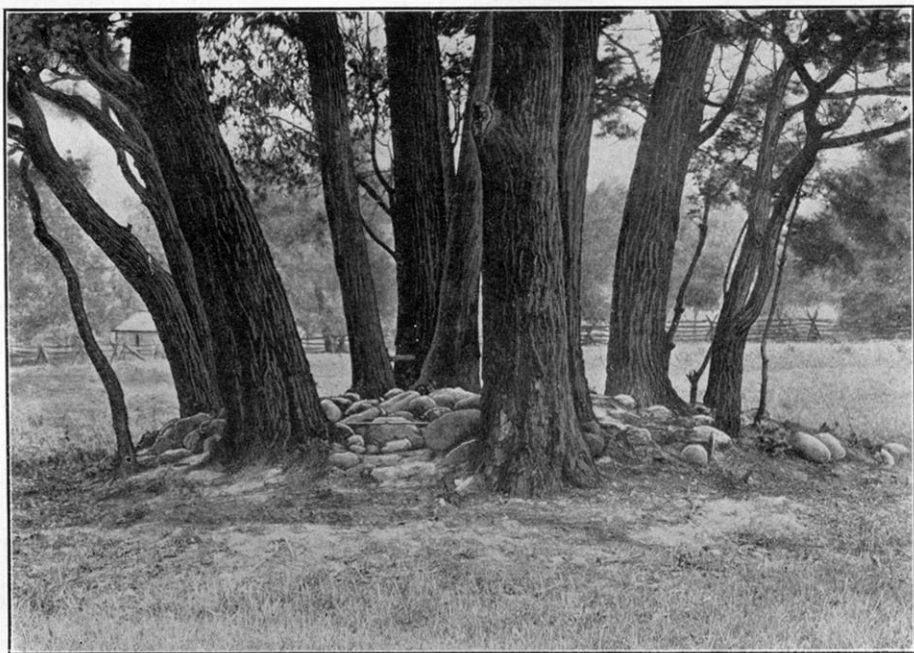
excavations. Either rocks or timber may have been placed over them, or the earth thrown directly on them. The bodies may be extended or folded; they may be accompanied by artifacts similar to the finest found in the Ohio mounds, or by a few rough arrowheads, or perhaps without any art remains whatever. All these and other forms of burial are common.

NORSE GRAVES

The barrows so far treated are such as would be best adapted for strengthening an argument that the graves on Charles river are of Indian origin; in other words, there are no cairns east of the Mississippi having a greater outward resemblance to those constructed by the Norse.

One of the latter is represented in plate XXIV, *b*. It is at Clematis Brook, a few miles from Cambridge. Graves of this type are numerous in that vicinity, as well as at other places within a few miles. They are called graves, because they answer in every particular of size and situation to those mentioned in different sagas, and are in the midst of various other remains which must be attributed to the Northmen; and yet, in all that have been examined there has been found not the slightest trace of bone or any object which shows the least indication of being artificial. This, however, is only negative evidence; the same statement is true in regard to the graves of Iceland and Greenland; and not only of the graves in these countries, but also of the house-sites. It is thus apparent that they differ from Indian graves even more in the manner of their interior construction than in their outward appearance.

The illustrations and descriptions given in this paper encompass every variety of Indian remains examined east of the Mississippi which is at all comparable with the Norse remains. Almost infinite diversity may exist in minor details; but the radical elements, within whose scope must come all observed facts, are here presented.



a — Mound opposite Homestead, Pennsylvania. (The rule is two feet long.)



b — Supposed Norse grave at Clematis Brook, Charles river, Massachusetts.

STONE MOUND AND SUPPOSED NORSE GRAVE